



National Aeronautics and  
Space Administration

Rev F  
EFFECTIVE DATE: April 9, 2004

**George C. Marshall Space Flight Center**  
**OI-FD22.1**  
Marshall Space Flight Center, Alabama 35812

**FPD-**

# **ORGANIZATIONAL INSTRUCTION**

**Flight Projects Directorate**  
**Flight Systems Department**  
**Nodes 2/3 Program Group FD22**

**Nodes 2/3 Management Process**

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# Revision F

## APPROVAL

NAME	TITLE	ORG	DATE
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Kenneth Mitchell	Manager, SSNPO	FD22	April 8, 2004

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## DOCUMENT HISTORY LOG

<b>Status (Baseline/ Revision/ Canceled)</b>	<b>Document Revision</b>	<b>Effective Date</b>	<b>Description</b>
Baseline		7/27/97	Baseline version
Revision	Rev. A	12/2/97	Corrected Paragraph 5 to align with FPO-OWI-JA01.2. Updated QR Master List. Editorial changes.
Revision	Rev. B	2/12/98	Updated applicable documents list, "hot list", editorial changes
Revision	Rev. C	5/6/98	Update to further define disposition of Quality Records
Revision	Rev. D	6/15/99	Corrections for reorganization & consolidation into MSFC Directives System; Document number and title change
Revision	Rev. E	7/31/00	Reformatted to Flight Projects Directorate standard format. Editorial changes. Added safety meeting requirement. Added text in 4.2 to accompany the Flow Diagram in Section 11.
Revision	Rev. F	4/09/2004	Updated Applicable Documents & Acronyms Updated Safety Procedures, paragraph 4.3 & 4.4 Removed KSAOC and replace with competencies & skills Delete "Quality" from quality records, paragraph 8.0 Deleted Records Master List

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## 1. GENERAL INFORMATION

**1.1 Scope.** This instruction covers all functions in the Flight Projects Directorate, Nodes 2/3 Program Group that affect the quality of in-scope products for International Space Station (ISS) Nodes 2 and 3. This organizational instruction is under the auspices of the Marshall Space Flight Center (MSFC) Management Manual, relevant MSFC Standard Procedures, Center-wide Instructions, and Flight Projects Directorate Organizational Instructions. This Organizational Instruction will be managed as such.

**1.2 Purpose.** The purpose of this instruction is to define and document the quality management process by which the Flight Project Directorate, Nodes 2/3 Program Group operates. The instruction defines how the Nodes Office has organized its staff, trained its personnel, and manages its business. It defines the Nodes office Quality Records, addressing their adequacy and timeliness, and the Nodes Office process flow charts. This instruction defines the Nodes Office Quality Record Master List, which supplements those master lists of the Center and the Flight Projects Directorate.

**1.3 Applicability.** The instruction applies to the procurement and delivery of the flight hardware and flight support equipment that is the responsibility of the Nodes Office.

## 2. APPLICABLE DOCUMENTS

Revision levels of documents are not shown. The latest revision will be used unless otherwise required by contractual requirements or other regulations. In this case the letter revision of the document will be given.

FPD-OI-FD01.1	Management Process
FPD-OI-FD01.2	Authorization and Control of OIs
FPD-OI-FD01.3	Technical Task Agreement Process
MPG 1280.1	Management Review
MPD 1280.1	MSFC Management Manual
MPG 1050.1	Contract (Customer Agreement) Review
MPG 1280.4	MSFC Corrective Action System
MPG 1280.5	MSFC Preventive Action System
MPG 1410.2	Marshall Management Directives System

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MPG 1440.2	MSFC Records Management Program
MPG 2190.1	MSFC Export Control Program
MPG 8060.1	Flight Systems Design Control
MPG 8715.1	Marshall Safety, Health, and Environmental (SHE) Program
MWI 5113.1	Credit Card Operating Procedures
MWI 7120.1	Project Quality Plan
MPG 7120.3	Data Management, Programs/Projects
NPG 1441.1	Records Retention Schedules
NPG 7120.5	NASA Program & Project Management Processes & Requirements

### 3.0 Acronyms & Definitions

#### 3.1 Acronyms

ASI	Italian Space Agency
CWC	Collaborative Work Commitment
CFE	Contractor Furnished Equipment
CWC	Collaborative Work Commitment
ESA	European Space Agency
FPD	Flight Projects Directorate
GFE	Government Furnished Equipment
IAW	In Accordance With
ISS	International Space Station
ISSPO	International Space Station Program Office
JSC	Johnson Space Center

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MMM	Marshall Management Manual
MSA	Management Support Assistant
MSFC	Marshall Space Flight Center
MWI	Marshall Work Instructions
NPG	NASA Program Guidance
NPO	Nodes Program Office
SSNPO	Space Station Nodes Project Office
TDY	Temporary Duty

### **3.2 Definitions**

**Competencies or Skills** are attributes the employee needs to possess to fulfill the requirements for a given position. They are established by the NASA Personnel Office and available at MSFC website <http://caer.msfc.nasa.gov/ps.html>.

**Records** - Records which satisfy the requirements of the Quality System per MPG 1440.2. Such records include those for management reviews, contractor review records, acceptable data packages, database records, audits, and customer complaints.

## **4.0 INSTRUCTIONS**

### **4.1 General Information**

Detailed implementation of the FD NPO quality process is controlled by the applicable project plans or appropriate directive (Task Agreement, Contract, etc.) that applies to that organizational element. All FD22 employees and in-scope contractors utilize the process described in paragraph 4.2

#### **For Center-Level Documents**

Go to the MSFC Home Page located at <http://www1.msfc.nasa.gov> Click on "Marshall is ISO 9001 registered!" Click on MIDL (top left bar). Then click on Directives Master List. This goes to the list of all Center-level documents, and is arranged numerically. The list can be sorted by ISO Element or by type (MPG, MWI, etc.)

#### **For Flight Projects/Department/Group/Office Level Documents (Specifically FD22 OI's)**

Go to the Flight Projects Home Page located at <http://flightprojects.msfc.nasa.gov/>  
Click on "ISO 9000"  
Click on "FD Master List"  
Click on the desired document

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#### **4.2 Procedure**

The general top-level procedure for conducting business in the Nodes 2/3 Program Group is depicted in the flow diagram 11.0. The process begins with a review and documentation of customer requirements. The support to be provided by this office including top level requirements, task agreements, or specifications is specified in the customer agreement. A Project Plan or Task Agreement is then developed in accordance with NPG 7120.5A, "NASA Program and Project Management Processes and Requirements". The Project Plan or task agreement is presented to and negotiated with the ISS Program Office. If there are any changes in customer requirements or reprogramming, the process is repeated.

#### **4.3 Safety Meetings**

Safety meetings will be in compliance with MPG 8715.1, Marshall Safety, Health, and Environmental (SHE) Program, Section 3.1.10.1. The safety meetings are required monthly, may be a part of regular office staff meetings, and are expected to represent 15-20 minutes on the agenda. Records of these meetings will be entered in the Supervisor Safety Web Page by the group or lead or her/his designee. Quarterly safety meetings will be held at the to cover mandatory topics and will be recorded on the supervisor safety web page by the director or his designee.

#### **4.4 Safety Visits**

Monthly safety visits are required of all offices. Records of these visits will be entered in the Supervisor Safety Web Page

### **5.0 NOTES**

The roles and responsibilities of the FD NPO personnel are as follows:

**Nodes 2/3 Program Group Manager** The Nodes Program Group Manager directs the management and technical activities of the MSFC Nodes Teams along with those of ASI/Alenia and is responsible for the integration of the Nodes 2/3 with the ISS program. The Group Manager is also responsible for the cost and schedule impacts resulting from changes imposed by the ISSPO.

**Nodes Program Integration Team Lead** The Program Integration Team Lead supports the Group Manager in Project resources, plans, schedules, reviews, configuration/data management, task agreements, risk management, software, export control and GFE.

**Node 2 Team Lead** The technical manager responsible for the Node 2 design, development, test, and evaluation for operation on the ISS. Technical responsibilities include deriving interface control documentation for integration of attached elements with Node 2 as well as attaching Node 2 to the ISS configuration.

**Node 3 Team Lead** The technical manager responsible for the Node 3 design, development, test, and evaluation for operation on the ISS. Technical responsibilities include deriving interface control documentation for integration of attached elements with Node 3 as well as attaching Node 3 to the ISS configuration.

**Office Manager or Management Assistant** As Office Manager, this person supports the office

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team through a variety of functions including timekeeping management, office automation services, supervisor calendar maintenance, and TDY arrangement and tracking.

## **6.0 SAFETY PRECAUTIONS AND WARNING NOTES**

None

## **7.0 APPENDICES, DATA, REPORTS, AND FORMS**

None

## **8.0 RECORDS**

All records will be maintained in accordance with MPG 1441.1, NASA Records Retention Schedules. Records Plans (MSFC form 2441) are maintained by the Directorate ESA/MSA per MPG 1440.2 MSFC Records Management Program. The Records Plans will identify all records by title, description, filing arrangement, disposition instructions, and disposition authority for which the organization is responsible.

Credit card records are not currently considered Quality Records, but must be maintained by the credit card holder. This requirement is subject to change and credit card records must be maintained in accordance with the latest version of MWI 5113.1 that is posted on the ISO web page. The cardholder file is a government contract file required to be maintained and dispositioned in accordance with the Federal Acquisition Regulations, Subpart 4.8 (see MWI 5113.1A, paragraph 9.a.). The contents of the file include the original Purchase Order, copies of bank statements, original merchant invoices, and copies of disputes information (see MWI 5113.1A, paragraph 6.p.). The file is to be retained for at least 3 months after the invoice has been paid.

## **9.0 TOOLS, EQUIPMENT, AND MATERIALS**

None

## **10.0 PERSONNEL QUALIFICATION, TRAINING, AND CERTIFICATION**

### **10.1 Personnel Qualifications**

A FD NPO employee shall be considered qualified to fill his/her initial position when the individual is hired and successfully completes the three-month probationary period with the Marshall Space Flight Center.

An employee's qualifications to fulfill increased responsibilities within the FD NPG organization shall be determined by the FD NPG Program Group Lead based upon the employee's past performance and the FD NPG Program Group Lead's judgment of the employee's capabilities.

When an employee is transferred or competitively promoted to another position, the skill and



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competencies for that position shall establish the employee's qualifications for that position.

## **10.2 Training**

Training of FD NPG personnel shall be conducted and ensured in accordance with Training, MPG 3410.1.

All employees currently employed are considered to be fully qualified to perform their current assignments. Any employee hired or transferred following the signature date of this OI will be qualified per MPG 3410.1 and documentation of their qualification will be maintained by the MSFC Human Resources Office. The employee supervisor, in conjunction with the employee, will define any additional training required to enhance employee performance.

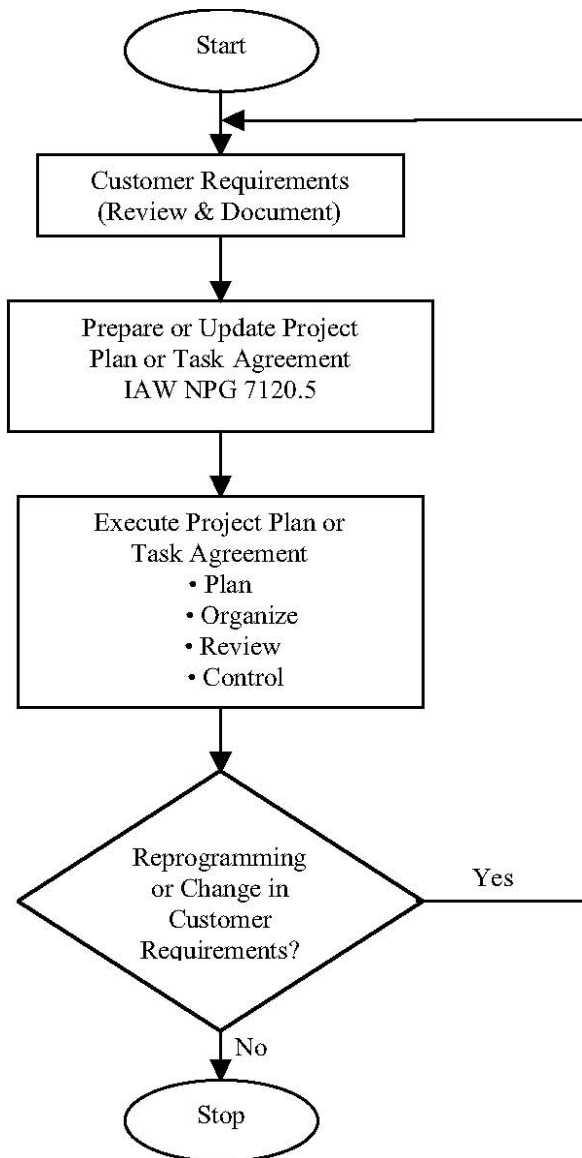
All employees are required to participate in training for the ISO 9000 Quality Management System.

FPD is in the process of mandating certification for Systems Engineers. While in this transitory, phase in time, no certification is required until October 2006.

## 11.0 FLOW DIAGRAM

The following diagram graphically depicts the process for conducting business within the Nodes 2/3 Program Group.

### Records



### Records

Customer Agreement  
(Top-Level Requirements,  
Task Agreement, or Specification)

Project Plan

Review Data, Minutes, Actions  
Configuration Control